

# MASSIVE 399 - 100 HP 4WD

## PERFORMANCE

Maximum engine power at 2,200 rpm	100 hp*
Maximum torque at 1,600 rpm	391 Nm
Maximum PTO power at rated 2,200 engine rpm	70 hp**

\*Certified to BU AU 141a : (1971)

\*\* Manufacturer's estimate

## ENGINE

Type	Perkins / 4.41
No. Of Cylinders	4
Injection	Direct
Bore	101 mm
Stroke	127 mm
Capacity	4.1 l
Compression ratio	15.3 : 1
Aspiration	Natural
Starting Aid	Thermostart
Throttle control	Hand and foot
Cooling	Water
Air Cleaner Type	Oil bath
Air Pre-Cleaner	Over Bonnet, air swirl
Fuel filter	Dual, high capacity with sedimentor
Exhaust	Vertical ; muffler under bonnet
Oil cooler	Water cooled

## ELECTRICS

Voltage	12 V, Negative Earth
Battery	110 Ah
Alternator / Starter	45 Amp / 2.8 kW

## CLUTCH

Type	Dual
Diameter	305 x 254 mm
Lining material	Cerametallic

## TRANSMISSION

Type	Sliding Spur
Number of gears	& forward, 2 reverse
Road speed at 2,200 engine rpm with 18.4 / 15 - 30 rear tyres	
Gear	Speed (kph)
Forward 1 (first low)	2.7
Forward 2	3.7
Forward 3	5.1
Forward 4	6.8
Forward 5 (first high)	10.4
Forward 6	15.2
Forward 7	20.8
Forward 8	27.9
Reverse 1 (low)	3.5
Reverse 2 (high)	14.1

## POWER TAKE OFF

Type	Live
Engine speed at 450 PTO rpm	1,789 rpm
Shaft diameter	35 mm
no. Of splines	6

## HYDRAULICS

Functions	Draft control, Position control, Response control, Constant pumping
Pump Type	4 piston Ferguson Pump
Maximum Oil Flow	16.7 litres / min
Maximum Pressure	21 Mpa (205 bars) at normal operating temperature
Max. Lift capacity with lower links horizontal Lower Links	2,145 kg With cat. I & II interchangeable balls

## FRONT AXLE

Axle Type	Parallel drive
Engagement	Mechanical

## STEERING

Type	Hydrostatic
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## REAR AXLE AND BRAKES

Axle Type	Straddle with epicyclic reduction
Brake Type	Oil immersed, multi-disc
Braking Area	1,774 sq.cm.
Brakes Actuation	Hydraulic
Parking Brake	Hand lever operated

## INSTRUMENTATION

Gauges	Technometer, Hourmeter, Feul level, Battery condition & Water temperature
Warning lights	Direction indicators, Battery charge, Headlight main beam, Low engine oil pressure 4WD indication light

## TYRES

Front	12.4 / 11 - 24 (6PR)
Rear	18.4 / 15 - 30 (6PR)

## TRACK ADJUSTMENT

Front Axle	1,376 - 1,944 mm
Rear Axle	1,423 - 2,134 mm

## WEIGHTS AND DIMENSIONS

(With 12.4 / 11 - 24 Front & 18.4 / 15 - 30 rear wheel with full fuel, oil & water)

### Weight

Weight front	1,429 kg
Weight rear	1,582 kg
Weight total	3,011 kg

### Dimensions

Wheel base	2,350 mm
Overall Length	3,810 mm
Overall width (min)	1,817 mm

### Height

Over exhaust	2,458 mm
Over steering wheel	1,781 mm

### Turning Circle

Without brakes	8,518 mm
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### Ground Clearance

Under gear box	501 mm
under 4WD front axle	395 mm

## CAPACITIES

Fuel tank	108.0 l
Engine pump	7.5 l
Cooling system	15.2 l
Hydraulic system	47.4 l
Power steering reservior	2.0 l
Oil bath air-cleaner	0.7 l
Brake Oil	0.25 l
4WD front axle differential hub each side	5.6 l 1.0 l

## STANDARD EQUIPMENT

Weight frame without weights, standard tool box with set of tools, Top link, Top link end cat-i, Cat-I & II balls, Check chains, Spring operator's Manual

## OPTIONAL EQUIPMENT

Front end weights, swinging drawber, sun canopy, Pintel hook, Rear Counter weight.

## OPERATOR AREA

Seat	Cushioned
Fenders	Flat top
Tool box	Standrad